





BYLINKINA, V. N.

Bylinkina, V. N. - "Microorganisms in the mineralization of humus soil substances,"
Trudy Vsesoyuz. nauch.-issled. in-ta s. -kh. mikrobiologii, Issue 1 (for 1941-1945),
1949, p. 59-69

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8

The influence of burning on changes of soil properties
A. G. Trutnev and V. N. Bykovskaya. *Voprosy i issledovaniye Pediologii* 1951, 23: 7. - Clearing of forest waste land for cultivation by burning causes an increase in pH, available P, K, and N. J. S. Joffe and N.

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8"

Bylinkina, V. N.

The microflora of black soils and its importance to the root nutrition of plants. V. N. Bylinkina and A. N. Pertseva. *Trudy Vsesoyuz. Nauch.-Issledovatel. Inst. So'iskobiotekhniki. 8, 5-13 (1953).*—Samples of the following soils were studied: (1) Precaucasian black soil from the Rostov Exptl. Station; (2) usual black soil from the Agricultural Institute of the Voronezh region; (3) southern black soil from the Institute of Grain Economy of the Saratov region; (4) Kuban black soil; (5) dark-brown soil from the Erakov Exptl. Center (also of the Saratov region); and (6) humus-carbonaceous and midpotzoly clay soil of the Leningrad region which was used as the control. Golden-rain strain of *eggs* were planted experimentally in the spring in flower pots of 3.5-kg. capacity. Weight of the dry plant substance indicated highest yield in soil type 1 and lowest in type 4. (The addn. of fertilizer to 1 produced no beneficial effect.) Marked improvement in the yield was observed in all other soils upon the addn. of N fertilizers, indicating that the natural nitrogenous compds. present in

the upper arable layers of those soils were in the form not readily available to the growing plants. Soil of type 4 responded particularly well to the addn. of P fertilizers, while soil of type 6 responded best to the addn. of N and P contg. fertilizers. Soils 1, 5, and 6 proved most active microbiologically, stored a greater percentage of nitrates, had a higher azotobacter population, and a lower β -humus content. The parallelism between the yield of plant substance and the no. of azotobacteria may be only a secondary manifestation, since such parallelism was frequently observed in soils rich in natural N substances as well. The question of the effectiveness of the addn. of azotobacter cultures to the soil cannot be answered in categorical terms. Much depends upon the structure of the soil, the natural presence or the artificial addn. of P compds., the presence of α -humates, the presence of basic organic constituents, and the pH of the soil. B. S. Levine

The importance of the subtilable layers of black soils to plant nutrition. N. M. Lazarev, V. N. Bylinkina, A. N. Burtseva, and V. P. Balko. *Trudy Instituta Zemel'skogo Khozyaistva i Selskogo Hoz.* Issledovatel. Inst. Sel'skokhoz. Mikrobiol., 8, 14-21 (1953).—Preliminary set of expts. was made with following 3 types of soil: (1) Southern black soil of the South-Eastern Inst. of Grain Economy with soil layers 0-18, 19-27, and 28-59 cm. deep; (2) humus-carbonaceous soil from the Leningrad-Kingiseppsk region, with soil layers 0-20, 21-35, and 36-50 cm. deep; (3) midargillaceous loamy soil from the Lakhta station of the Leningrad region, with soil layers 0-18, 19-34, and 35-50 cm. deep. It was found that total N values decreased with the depth of soil layers; the nitrate N was of equal value in the upper 2 layers of soil (1) and considerably reduced in the 28-55 cm. layer. In the podzolic soil, the biol. activity, which is generally low in the upper layers, is practically absent in the deeper soil layers. The second series of plant-growing expts. were carried out in pots 20 cm. high when individual soil layers were tested and in pots 60 cm. high when the total 3 soil layers were tested integrally. Plant yields in dry wt. were practically the same in each of the 3 soil layers at normal pH. When the pH was lowered the yield in the subtilable layers was reduced. In the 60-cm. pots, in which the total of 3 soil layers were tested, the yield in the case of soil type (1) was greater than the total of the yields of its individual constituent layers. In the podzolic soil the yield of the entire 3-layered test was smaller than in the single 0-17 cm. layer owing to the fact that the root system extended into the poorer lower soil layers. Knowledge of this has an important bearing on the application of deep-soil fertilization and microbioactivation in different crops, especially in the case of perennial grasses.

B. S. Levine

(2)

Bylinkina, V.N.

CH ✓ The effect of prolonged application of manure and of mineral fertilizers on the microflora of black soils. V. N. Bylinkina and E. S. Fishkova. *Trudy Vsesoyuz. Nauch.-Issledovat. Inst. Sel'skokhoz. Mikrobiol.* 8, 29-32 (1953).— The prolonged application of any type of fertilizer produces clear-cut pos. results with regard to the fertility of black soils through the increase in its content of total N. The enhanced formation of fertilizers affects the qual. compn. of the soil microflora. This is particularly true in the case of continuous application of manure which inevitably increases the population of manure-decomp. as well as of the N-fixing bacteria. B. S. Levine

BYLINKINA, V.N., kandidat biologicheskikh nauk; PERTSEVA, A.N.,
kandidat biologicheskikh nauk.

Microflora of chernozem soils and its importance for root nutrition
of plants. Trudy Vses. inst. sel'khoz. mikrobiol. 13:5-13 '53.
(Chernozem soils) (Soil microorganisms) (MIURA 8:1)

LAZAREV, N.M.; BYLINKINA, V.N., kandidat biologicheskikh nauk; PERTSEVA, A.N., kandidat biologicheskikh nauk; BAYKO, V.P., kandidat sel'skokhozyaystvennykh nauk.

Importance of the subsoil horizons of chernozem soils in the nutrition of plants. Trudy Vses.inst.sel'khoz.mikrobiol. 13:14-21 '53.

(Chernozem soils) (Soil fertility)

BYLINKINA, V.N., kandidat biologicheskikh nauk.

Effect of forest belts and irrigation on the microbiology of
chernozem soils of the Kamennaya Steppe. Trudy Vses. inst. sel'khoz.
mikrobiol. 13:22-27 '53. (MLRA 8:1)

(Kamennaya Steppe--Soil microorganisms) (Irrigation)
(Windbreaks, shelterbelts, etc.)

Bylinkina, V.

BERESNEVA, V.; BYLINKINA, V.; DOROSINSKIY, L.; LAZAREV, N.; LOPATINA, G.

Mariia Pavlovna Korsakova; obituary. Mikrobiologiya 24 no.5:650
S-O '55. (MLRA 9:1)
(KORSAKOVA, MARIIA PAVLOVNA, 1881-1955)

MALYUGIN, Ye.A. [deceased]; LAZAREV, N.M.; BYLINKINA, V.N.

Microbiological characteristics of basic soil types in the sandy areas of the northern part of the Aral Sea region with regard to their utilization in plant raising. Trudy Vses. inst. sel'khoz. mikrobiol. no.14:5-33 '58. (MIRA-15:4)

(Aral Sea region--Soils--Microbiology)

BYLINKINA, V.N.

Effect of irrigation on the microbiological characteristics of
Ciscaucasian Chernozems. Trudy Vses. inst. sel'khoz. mikrobiol.
no.14:34-48 '58. (MIRA 15:4)
(Bogayevskiy District—Soils—Microbiology) (Irrigation)

SAMOYLOV, I.I., akademik, glavnnyy red. [deceased]; BEREZOVA, Ye.F., doktor biolog.nauk, zamestitel' glavnogo red.; BYLINKINA, V.N., kand.biolog.nauk, red.; BERESENEVA, V.N., kand.biolog.nauk, red.; DOROSINSKIY, L.M., kand.biolog.nauk, red.; PROKHOROV, M.I., kand. biolog.nauk, red.; MAKAROVA, M.M., kand.biolog.nauk, red.; KRONGAUZ, Ye.A., red.; ZUBRILLINA, Z.P., tekhn.red.

[Microbiology in the service of agriculture] Mikrobiologija na sluzhbe sel'skogo khozaiestva. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 309 p. (MIRA 13:8)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennoy mikrobiologii. 2. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Samoylov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennoy mikrobiologii (for Berezova, Dorosinskiy).

(Bacteriology, Agricultural)

BYLINKINA, V. N.; MOVCHAN, N.A.

Development of the microflora during the preparation and preservation
of the started culture for the inoculation of the AMB peat-lime
bacterial fertilizer. Trudy Vses. inst. sel'khoz. mikrobiol. 16:
202-215 '60. (MIRA 13:9)
(Soil inoculation)

BYLINKINA, YE. M.

USSR/Medicine - Typhus
Medicine - Blood

Jun 48

"Hemodynamic Abnormality Due to Exanthematous Typhus," G. N. Teytel'baum,, Lt Col Med Sv: Ye. M. Bylinkina, Chair of Infectious Diseases, Mil Acad Imeni S. M. Kirov, 8 $\frac{1}{4}$ pp

"Klin Med" Vol XXVI, No 6

Report of observations shows how artery, pulse and venous pressure, blood counts, and circulation rate are affected by typhus.

PA 14/49 T60

BYLINKINA, Ye.M.

Results of application of proserine in brucellous myelitis.
Klin. med., Moskva 30 no. 5:33-35 May 1952. (CLML 22:3)

1. Leningrad.

KAZANTSEV, A.P., kand. med. nauk; VESELOVSKAYA, T.A.; BYLINKINA, Ye.M.

Effect of protozoan and helminth infections on vitamin C metabolism
in dysentery. Sovet. med. 23 no.2:81-84 F '59. (MIRA 12:3)

1. Iz kafedry infektsionnykh bolezney Voyenno-meditsinskoy ordena
Lenina akademii imeni S.M. Kirova (nach. - prof. P.A. Alisov).
(DISENTERY, compl.
protozoan & helminth infect., eff. on vitamin C metab. (Rus))
(PROTOZOAN PATHOGENIC INFECTIONS, compl.
dysentery & helminth infect., eff. on vitamin C metab. (Rus))
(HELMINTH INFECTIONS, compl.
dysentery & protozoan infect., eff. on vitamin C metab. (Rus))
(VITAMIN C, metab.
in dysentery with helminth & protozoan infect. (Rus))

BOYKO, I.D., BYLINKINA, Ye.S.

Spray drying of antibiotics. Med.prom. 12 no.7:41-46 J1 '58
(MIRA 11:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ANTIBIOTICS)

BOYKO, I.D.; BYLIKINA, Ye.S.

Drying of streptomycin solutions by sublimation. Med.prom. 14
no.1:40-45 Ja '60. (MIRA 13:5)

1. Vsesoyusnyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCIN--DRYING)

BOYKO, I.D.; BYLINKINA, Ye.S.; YAKHONTOVA, L.F.; BRUNS, B.P.

Production of a high quality streptomycin. Med. prom.
15 no.11:38-42 N '61. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(STREPTOMYCIN)

S/243/62/000/007/001/001
I021/I215

AUTHORS: Boyko, I. D., Bylinkina, Ye. S., Terechova, V. F. and Nechayeva, M. G.

TITLE: Extraction of antibiotics from culture fluids without separation of mycelium

PERIODICAL: Meditsinskaya Promyshlennost SSR no. 7, 1962, 18-25

TEXT: Filtration of culture fluids as the first step in extraction of antibiotics is time consuming and results in a loss of 10 to 20% of antibiotics. Better results were obtained by a direct extraction method (Bartels C.R., Kleinman G., Korzun, J. N. et al., Chem. Eng. Progr. v. 54, 1958, 49; Bartels, C. R., Kleinman G. U., Patent 278631, 1956). This method has been successfully applied for the extraction of streptomycin by filtration through cationites KB-4P-2 (KB-4P-2) and KB-2 (KB-2) with the addition of 0.8-1.0% sodium to the culture fluid. This method saves time and increases the yield. There are 4 tables and 3 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov (All-Union Institute of Antibiotics Research).

SUBMITTED: May 19, 1961

Card 1/1

BOYKO, I.D.; BYLINKINA, Ye.S.

Spray drying of antibiotics. Med. prom. 16 no.2:27-35 F '62.
(MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ANTIBIOTICS)
(BIOLOGICAL PRODUCTS---DRYING)

BOYKO, I.D.; BYLINKINA, Ye.S.; TEREKHOVA, V.F.; NECHAYEVA, M.G.

Isolation of antibiotics from culture liquids without detachment
of the mycelium. Med.prom. 16 no.7:18-25 Jl '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(ANTIBIOTICS) (CHEMISTRY, MEDICAL AND PHARMACEUTICAL)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8

BYLINO, K.

see RUSZCZYK, K.

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CIA-RDP86-00513R000307920011-8"

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8

BYL'INOV, Aleksandr

Rec.
.B931

Metallisty; povest (The Metal Workers; A Tale) Moskva, Sovetskij;
pisatel', 1954.

298 p.

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8"

MINAYEV, Ivan Nikitovich; BYLINSKAYA, I.G., red.; YELAGIN, A.S.,
tekhn.red.

[Party committees and the promotion of technological knowledge]
Partiiniyi komitet i propaganda tekhnicheskikh znanii. Moskva,
Izd-vo "Sovetskaya Rossiia," 1960. 26 p. (MIRA 13:10)
(Communist Party of the Soviet Union--Party work)
(Technical education)

SAYRANOV, Khaydar Sayranovich; BYLINSKAYA, I.G., red.; MATVEYEV, A.P.,
tekhn.red.

[The most important sector] Glavnoe napravlenie. Moskva,
Izd-vo "Sovetskaya Rossiya," 1960. 45 p.

(MIRA 14:2)

1. Sekretar' Bashkirskogo obkomu Kommunisticheskoy parti
Sovetskogo Soyuza (for Sayranov).
(Bashkiria--Industries) (Bashkiria--Agriculture)

ORLOV, V.N.; BYLINSKAYA, I.G., red.; YELAGIN, A.S., tekhn. red.

[Use advanced cultivation practices in growing buckwheat]
Grechikhe - vysokuiu agrotekhniku. Moskva, Izd-vo "Sovet-skaia Rossiia," 1961. 15 p. (MIRA 14:8)

1. Brigadir komplaksnoy brigady kolkhoza imeni Il'icha Avgazinskogo rayona Bashkirskoy ASSR (for Orlov)
(Buckwheat)

ZABOTINA, Zinaida Ivanovna, deyarka; BYLINSKAYA, I.G., red.;
MARA~~K~~SOVA, L.P., tekhn.red.

[Working with the hands is a holiday for the mind] Rukam
rabetu - dushe prazdnik. Moskva, Izd-vo "Sovetskaya Rossiia,"
1961. 22 p. (MIRA 15:2)

1. Sovkhoz "Shuyskiy" Ivanovskoy oblasti (for Zabotina).
(Ivanovo Province--Dairying)

MAKHSUTOV, Dil'mambet Atmambetovich, starshiy chaban; BYLINSKAYA, I.G.,
red.; MARAKASOVA, L.P., tekhn.red.

[Lighthouses in the steppe] Maiaki v stepi. Moskva, Izd-vo
"Sovetskaya Rossiia," 1961. 19 p. (MIRA 15:2)

1. Plemennoy ovtsezavod "Chervlenyye buruny" Dagestanskay ASSR
(for Makhsutov).
(Daghestan--Wool)
(Daghestan--Socialist competition)

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8

DYAGILEV. Vladimir Yakovlevich; BYLINSKAYA, I.G., red.; SILONOVA,
G.N., tekhn. red.

[Magician in a white smock] Volshabnik v belom khalate. Mo-
skva, Sovetskaia Rossiia, 1963. 190 p. (MIRA 17:3)

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8"

BYLINSKAYA, L.N.; MESHCHERYAKOV, Yu.A.

Relation between the lapse rate of vertical tectonic movements
of the earth's surface and seismicity as revealed by a study
made in the western half of the European part of the U.S.S.R.
Dokl. AN SSSR 154 no. 3:586-589 Ja '64. (MIRA 17:5)

1. Institut geografii AN SSSR. Predstavлено академиком I.P.
Gerasimovym.

ROGACHEVSKIY, A.S. (Chelyabinsk); BYLINSKAYA, T.B. (Kazan')

Studying the economy of natural railroad freight areas and
establishing regular freight routes. Zhel. dor. transp. 40
no.6:84-87 Je '58.

(MIRA 11:6)

1. Nachal'nik otdela planirovaniya perevozok gruzovoy sluzhby
Chelyabinskogo administrativnogo ekonomicheskogo rayona Yuzhno-
Ural'skey dorogi (for Rogachevskiy). 2. Zamestitel' nachal'nika
planovo-ekonomicheskogo otdela Kazanskoy zheleznoy dorogi (for
Bylinskaya).

(Railroads--Freight)

MIKONI, V.V., inzh.; BEREZIN, P.K., inzh. [deceased]; GLADKOV, L.V., inzh.;
ZHELOTOV, O.Ye., inzh.; USTIMENKO, P.N., inzh.; SOROKIN, N.N., red.;
V redaktsirovaniy prinimal uchastiye BYLINSKIY, B.N., inzh.;
VERINA, G.P., tekhn.red.

[Manual on the layout and laying of track joints, crossings, and
interlacings] Spravochnik po razbivke i ukladke soedinenii, pe-
resechenii i spletenii putei. Moskva, Vses.izdatel'sko-poligr.
ob"edinenie M-va putei soobshcheniya, 1960. 335 p.

(MIRA 13:9)

(Railroads--Switches) (Railroad engineering)

BYLINSKIY, KONSTANTIN IOSIFOVICH

8/5
923.876
.B 9

Spravochnik po orfografii i punktuatsii dlya rabotnikov pechati (Handbook on orthography and punctuation for printers, by) K. I. Bylinskiy i N. N. Nikol'skiy. Moskva, Iskusstvo, 1952-

v.

Lib. has: 1952 - 2d. ed.
1957 - 3d. ed.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8

BYLINSKI, K. I.

A technical analysis of peat. Moskva, Gos. energ. izd-vo, 1951. 65 p. (52-19079)

TP/40.888

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307920011-8"

BYLINSKIY, S.V.

Issledovanie litoi i kovanoi stali [Inspecting cast and forged steel]. Sverklovsk,
Mashgiz, 1952. 212 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 2, May 1953

LAKHIN, Aleksandr Fedorovich; podpolkovnik; BILLINSKIY, Vyacheslav Ignat'yevich;
podpolkovnik; KUDRIAVTSEV, M.K., general-leytenant tekhnicheskikh
voysk, redaktor; Gnedovets, P.P., polkovnik, redaktor; SRIENIS, N.V.,
tekhnicheskiy redaktor.

[Military topography; textbook for students in small instruction
units and for infantry sergeants] Voennaia topografiia; uchebnik
dlia kursantov uchebnykh podrazdelenii i sershantov strelkovykh
voisk. Izd. 2-eo. Pod obshchei red. M.K.Kudriavtseva. Moskva,
Voen. izd-vo Ministerstva obrony SSSR, 1956. 255, xvi p.
(Military topography) (MLRA 9:6)

LAKHIN, Aleksandr Fedorovich, podpolkovnik; BYLINSKIY, Vyacheslav Ignat'yevich, podpolkovnik; KUDRYAVTSEV, M.K., general-leytenant tekhnicheskikh voyak, obshchiiy red.; YEMEL'YANOV, V.T., polkovnik, red.; STREL'NIKOVA, M.A., tekhn.red.

[Military topography; a manual for trainees and sergeants] Voennaia topografiia; uchebnik dlia kursantov uchebnykh podrazdelenii i serzhantov. Pod obshchei red. M.K.Kudriavtseva. Izd.3., perer. i dop. Moskva, Voen. izd-vo M-va obor.SSSR, 1959. 287 p.

(MIRA 12:12)

(Military topography)

14-57-6-11839

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,
p 28 (USSR)

AUTHOR: Bylinskiy, Ye. N.

TITLE: Laws of Alternate Narrowing and Widening of the River
Valleys of the Central Siberian Plateau (in the River
Basins of the Lower Tunguska and the Upper Katanga)
/O zakonomernostyakh cheredovaniya suzheniy i rasshire-
niy rechnykh dolin Sredne-Sibirskogo ploskogor'ya (v
predelakh basseynov rek Nizhney Tunguski i verkhov'yev
Katangi)]

PERIODICAL: Uch. zap. Mosk. un-t, 1956, Nr 182, pp 177-186

ABSTRACT: Alternate narrowing and widening of river valleys has
frequently been observed in this region. The author
has measured the length and width of these sections
on the geomorphological maps, and has prepared charts
showing how the width of the river valley changes from

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14-57-6-11839

Laws of Alternate Narrowing and Widening (Cont.)

the outlet to the source (for the Eyka reka (River), for its right tributary the Prida reka (River), and for a section of the Lower Tunguska at the mouth of the Eyka.. Furthermore, he has prepared a table showing the length of narrowing and widening sections in river valleys, midsummer channel width, and the length of these sections in the midsummer channel. To determine the latter width, he has taken the average of the fluctuations in the width of the midsummer channel in a single section. An analysis of the charts and tables shows that narrowing and widening sections are approximately equal in length, but that their respective lengths decrease upstream. When their morphology is clearly expressed, the average length of the sections is seen to be 170 to 270 times greater than the width of the midsummer channel. Although the narrow sections are usually found around hard bedrock (diabases) outcrops, they are not limited to such areas, and are distributed both upstream and downstream. The presence of incised meanders with deep channels and of long, straight sections, permits a conclusion about normal increase in
Card 2/3

14-57-6-11839

Laws of Alternate Narrowing and Widening (Cont.)

water surface gradient during the spring floods in the narrow sections. On the other hand, free meanders which assume a wide variety of forms and channels with very varied depths are the rule in wide sections. Here water surface gradients decrease during spring floods, and midsummer flow plays a prominent part in the valley formation. Thus, extensive meandering of the dynamic flow axis from midsummer to the time of spring flooding explains the origin of a broad valley.

Card 3/3

Ye. N. B.

Bylinskiy, Ye. N.
BYLINSKIY, Ye. N.

Changes in the longitudinal profiles of the tributaries of Lake
Sevan in connection with the lowering of its level. Izv. AN SSSR.
Ser. geog. no. 6:91-97 N-D '57. (MIRA 11:1)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Sevan, Lake) (Erosion)

BYLINSKIY, Ye. N.

Local base levels of erosion and their influence on the development
of the longitudinal profile of the river. Vest. Mosk. un. Ser. biol.,
pochv., geol., geog. 12 no. 4:245-250 '57. (MIRA 11:5)

1. Kafedra geomorfologii Moskovskogo gosudarstvennogo universiteta.
(Erosion) (Rivers)

BYLINSKIY, Ye. N. Cand Geog Sci--(diss) "Local ~~levels~~^{bases} of erosion and their effect upon the development of longitudinal sections of rivers (~~as illustrated~~ ^{on the example of} rapids and lakes)." Mos, 1958, 19 pp (Mos State Order of Lenin and Order of Labor Red Banner Univ im M. V. Lomonosov. Geog. Faculty. Chair of Geomorphology), 140 copies (KL, 11-58, 114)

BYLINSKIY, Ye. N.

Effect of water level lowering in Lake Il'men' and Lake
Ladoga on the development of the longitudinal profile of
tributaries of Lake Il'men' and the Volkhov River. Vest.
Mosk. un. Ser. biol., pochv., geol., geog. 14 no.3:221-230
'59. (MIRA 13:6)

1. Kafedra geomorfologii Moskovskogo universiteta.
(Il'men' region--Physical geography)
(Volkhov Valley--Physical geography)

BYLINSKIY, Ye.N.

Angara Rapids. Izv. vys. ucheb. zav.; geol. i razv. 3 no.8:33-40
Ag '60. (MIREA 13:10)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Angara River--Submarine geology)

BYLINSKIY, Ye.N.

New methodological suggestions for studying river terraces
at the rapids sections of a river; using the example of the
lower stream of the Western Dvina. Izv. AN SSSR. Ser. geog
no.1:103-109 Ja-F '62. (MIRA 15:2)

1. Nauchno-issledovatel'skaya laboratoriya geologicheskikh
kriteriyevotsenki perpektiv neftegazonosnosti Glavgeologii
RSFSR.

(Western Dvina River—Terraces(Geology))

BYLINSKIY, Ye.N.

Revealing recent tectonic movements by means of studying river
valleys. Izv. AN SSSR. Ser.geog. no.6:66-74 N-D '62.

(MIRA 15:12)

1. Nauchno-issledovatel'skaya laboratoriya geologicheskikh kriteriyev
i otsemki perepektiv neftegazonosnosti Glavnogo upravleniya geologii
i okhrany nedor pri Sovete Ministrov RSFSR.
(Pechora Valley—Geology, Structural)

BILINSKI, E.N. [Bylinskiy, Ye.N.]

Proposing some new methods for the study of fluvial terraces in the areas of river rapids (as exemplified by the lower current of the Western Dvina River). Analele geol geogr 14 no.4:93-100 O-D '62.

BYLINSKIY, Ye. N.

Recent data on the stratigraphy of Quaternary deposits and the
paleogeography of the Mezen' River basin. Dokl. AN SSSR 147
no. 6: 1421-1424 D '62. (MIRA 16:1)

1. Predstavлено академиком I. P. Gerasimovym.

(Mezen' Valley—Geology, Stratigraphic)
(Mezen' Valley—Paleogeography)

BYLINSKIY, Ye.N.; NAMESTNIKOV, Yu.G.; BERLYAT, A.M.

New data on the recent tectonics of the lower part of the Mezen' Basin. Izv. AN SSSR. Ser. geog. no.1:53-55 Ja-F '64.

(MIRA 17:3)

1. Geologicheskiy komitet SSSR i Nauchno-issledovatel'skaya laboratoriya geologicheskikh kriteriyev otseki perspektiv neftegazonosnosti.

IGNATOV, Veniamin Stepanovich; BYLINYAK, S.A., red.; CHERNYKH, M.P.,
mladshiy red.; VILENSKAYA, E.N., tekhn. red.

[One year at the cold pole] God na poliuse kholoda. Moskva,
Geografgiz, 1962. 143 p.
(MIRA 15:6)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut
(for Ignatov).

(Antarctic regions--Russian exploration)

PETROVA, Ye.N., professor; ZHELEZNOV, B.I.; kandidat meditsinskikh nauk;
BYLIONOK, V.K.

Diagnostic value of the cytologic method of studying vaginal smears
in ovarian dysfunction. Lab.delo no.4:3-6 Jy-Ag '55. (MLRA 8:8)

1. Iz instituta akusherstva i ginekologii (dir. L.G. Stepanov)
Ministerstva zdravookhraneniya SSSR.

(OVARIES, diseases,

diag., vaginal smears)

(VAGINAL SMEARS, in various diseases,
ovarian dysfunct.)

BYLIONOK, V.K.

Use of exercise therapy for pregnant women with cardiovascular diseases. Akush. i gin. 35 no.3:26-32 My-Je '59.

(MIRA 12:8)

1. Iz Nauchno-issledovatel'skogo instituta akusherstva i ginekologii (dir. - dotsent L.G.Stepanov) Ministerstva zdravookhraneniya RSFSR.

(PREGNANCY, in various dis.

cardiovase. dis., results of exercise ther. (Rus))

(CARDIOVASCULAR DISEASES, in pregn.

exercise ther., results (Rus))

(EXERCISE THERAPY, in various dis.

cardiovasc. dis. in pregn., results.(Rus))

LEBEDEV, A.A., prof.; RYKUNOV, Ye.I.; SINITSYNA, M.A.; PRIBYLOV,
K.N.; BYLIONOK, V.K.; PAVLOVA, I.I.; GOTOVSEV, P.I., red.;
YAKOVLEVA, N.A., tekhn. red.

[Exercise therapy in obstetrics and gynecology] Lechebnaia fiz-
kul'tura v akusherstve i ginekologii; posobie dlia vrachei
zhenskikh konsul'tatsii i rodil'nykh domov. Moskva, Medgiz,
(MIRA 15:12)
1962. 173 p.

(EXERCISE THERAPY)
(OBSTETRICS) (GYNECOLOGY)

BYLLO, G.I., inzh.

Effect of higher-frequency resonance vibrations on stresses in
metal girder bridges. Trudy RIIZHT no.24:76-91 '58. (MIRA 11:9)
(Railroad bridges--Vibration)

BYLLO, G.I., inzh.; KORASIN, M.Ye., inzh.; KRONFEL'D, B.D., inzh.; SEMIN, D.P., inzh.; STARODUBTSEVA, M.S., inzh., otv. za vyp.; KOROTKIY, I.A., tekhn. red.

[Technical information; production on movable stands of prestressed reinforced-concrete beams, transportable in one piece, with a span of 33.5 m. for railroad loads]
Tekhnicheskaja informatsiya; izgotovlenie na podvizhnykh stendakh tsel'no-prievozimykh zhelezobetonnykh predvaritel'no napriazhennykh balok proletnykh stroenii proletom 33,5 m. pod zheleznodorozhnuu nagruzku (Opyt Mostootriada-10 ordena Lenina Mostotresta). Moskva, Orgtransstroi, 1963. 20 p.
(Prestressed concrete construction)
(Beams and girders)

(MIRA 16:11)

Blyatskii, A.

PHASE I BOOK EXPLOITATION Sov/4350

Советскому по Книгам, технология и применению производных пиримидина и квинолина. Рига, 1957.
Khimika, tekhnologiya i primeneniye proizvodnykh pirimidina i kquinolina. Materialy soveshchaniya (Osnovy, Tekhnologiya i Obnaruzhenie Pirimidinov i Kquinolinovych Derivativov; Materialy ocherednoj konferencii) Riga, Izd-vo AN Latvийskoy SSR, 1960. 299 p. Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: Akademija nauk Latvijskoy SSR. Author: V. S. Bakhareva; Tech. Ed.: A. Kravtsova; Editorial Board: Yu. A. Barkovik; Candidate of Chemistry E. V. Vasilev; Candidate of Chemistry G. R. Zalukayev; Doctor of Chemistry, and M. M. Kalnyn.

PURPOSE: This book is intended for organic chemists and chemical engineers.

CONTENTS: The collection contains 33 articles on methods of synthesizing or producing pyridine, quinoline, and their derivatives from natural sources. No personalities are mentioned. Figures, tables, and references accompany the articles.

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Danilev, A. D. [Vostochno-balkanskiy filial Akademii nauk SSSR v Srednei Azii. Filial of the Academy of Sciences USSR]. Separation and Utilization of Nitrogenous Tar Bases From the Synthesis of Chemicals From Coal Tar.	31
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*Kostrov, V. A. [Institut gornozemel'skikh iskopaemykh Akademii nauk SSSR (Institute for Mineral Fuels of the Academy of Sciences USSR)]. Separation of the A-Picoline Fraction of the Selective Extraction Method	69
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OSTRUOKHOV, I.I.; BYLKOV, B.M.

Main direction for technical progress in the Nikopol' manganese basin for 1966 to 1970. Gor. zhur. no.8;3-5 Ag '64.

(MIRA 12:10)

1. Glavnnyy inzh. tresta Nikopol'-Marganets (for Ostroukhov).
2. Nachal'nik tekhnicheskogo otdala tresta Nikopol'-Marganets (for Bylkov).

BYLO, Z.

Metallurgical Abst.

June 1954

Electrometallurgy and Electrochemistry

(4)

Properties of the Antimony Micro-Electrode in [the Potentiometric Chromatography of] Aqueous Alcoholic Solutions.

B. Kamienski, Z. Bylo, and B. Waligóra. (*Bull. Acad. Polon. Sci.*, 1953, [iii]-1, 194), 137-141).—[In English]. It is considered that the Sb micro-electrode, described by K. (*Bull. Inst. Acad. Polon.*, 1949, [A], 131, 173) is satisfactory for the potentiometric chromatography of aq. methyl-alcoholic mixtures, and that small changes in the proportions of the binary mixture which may occur during the adsorption analysis do not impair the accuracy of results obtained by using the electrode. The electrode is a sensitive device for the detection of very small quantities of acids and bases dissolved in mixtures of H₂O with methanol, and, possibly, ethanol or propanol. 10 ref.—J. S. G. T.

11-11-54
mrf

BYLO.Z.

Electrometric adsorption analysis of strychnine and brucine by potentiometric chromatography. B. Waligóra and Z. Bylo (Bull. Acad. polon. sci., 1953, 1, No. 3/4, 143).—The purification of a column of Al_2O_3 (Brockmann) from alkali is achieved by washing with doubly-distilled H_2O and the purification is followed by passage of the eluents issuing from the column over an antimony microelectrode (Kamieński, Bull. int. Acad. polon., A, 1949, 131, 173). The purified Al_2O_3 is then dried (240° , 5.5 hr.). Solutions of strychnine and brucine in 50% EtOH show sufficient difference in potential on passage through an Al_2O_3 column for detection of each in mixed solution, strychnine being more strongly adsorbed than brucine. The sensitivity of the method is underlined by the fact that there is only slight difference in potential on variation of concn.

F. R. MUMFORD

ZYLO, 2 BIGNIEW

Quantitative measurements of the degree of adsorption in the flotation process. Zbigniew Zylo (Ural)
kow-Poland). A. Naukowo 2, 243-07 (1957) English
summary).—The potentiometric method for detg. adsorp-
tion isotherms (in hydrophilic adsorbents in aq. solns. (cf.
Kamieński, C.A. 32, 1584^a) was applied to the measurements
of adsorption of flotation collectors on surfaces of enriched
minerals. Adsorption of caprylic acid on Al₂O₃, Al(OH)₃,
Fe₂O₃, CaCO₃, CaF₂, and quartz, and of 1-naphthylamine on
CaF₂ and Al₂O₃ was detd. A. Kiggewski

PM 22

3

Electrometric adsorption analyses of the alkaloids of
Strychnos nux-vomica. B. Kamienski and Z. Hyla.
Bull. acad. polon. sci., Classe III, 1, 251-6 (1953); cf. C.A.
46, 4417b; 48, 8181g.—Artificial mixts. of strychnine and
brucine were investigated, the results indicating that
potentiometric chromatography on charcoal could be used.
However, only two max. were observed indicating the bases
and acids passed down the column together. With a very
dil. soln. more max. were observed, but strychnine and
brucine appeared at one max. Comparison of the results
with those obtained with Al_2O_3 indicates the latter to be far
more suitable for the sepn. of the alkaloids of *Strychnos nux-*
vomica.

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Norman D. Dawson

DYLO, Z.

POLAND/Analytical Chemistry. Organic Analysis.

E

Abs Jour: Ref. Zhur-Khimiya, No 12, 1958, 39433.

Author : Bylo.

Inst : Univ. Jagiellonskiego.

Title : An Electrolytic Analysis and Chromatographic Separation
of Multicomponent Systems On Some Adsorbents.

Orig Pub: Zesz. nauk. Univ. Jagiellonskiego Mat. fiz. chem.,
1955, No. 1, 131-165.

Abstract: A chromatographic separation was done for a 2- and
3-component solution system, dissolved in a mixture
of benzene and CuCl₃: brucine (I) / quinoline (II),
(I) / quinaldine (III) and (I) / 8-oxyquinoline (IV)
on calcium carbonate (V); (II) / (IV) on mixture of (V) and
aluminum oxide (VI); (III) / (IV), (I) / (II) / (IV),
(I) / (II) / myristic acid on (VI). The eluates were

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POLAND/Analytical Chemistry. Organic Analysis.

E

Abs Jour: Ref. Zhur-Khimiya, No 12, 1958, 39433.

investigated potentiometrically using an antimony micro-electrode. A chromatographic separation was studied of the extract of Strychnos Nux-vomica on Merck's charcoal (CC). The possibility was shown of an application of CC for a preliminary purification and separation of (I) and strychnine from an extract using a 70% ethanol as a solvent.

Card : 2/2

73

POLAND/Physical Chemistry - Electrochemistry.

B.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 28045
Author : Bylo, Z. and Waligora, B.
Inst : -
Title : Effect of Some Organic Acids and Bases on the Potential
of an Antimony Electrode in Alcoholic Solutions.
Orig Pub : Zeszyt nauk Uniwersyteckiego Jagiellońskiego, Mat., fiz., chem. No 2,
62-92 (1956) (in Polish with a Russian summary)
Abstract : The dependence of the potential E of an Sb-microelectrode (PAM) on the pH and on the concentration of alcohol (I) (methyl, ethyl, and propyl alcohol) in aqueous alcoholic buffered solutions has been investigated. E is a nearly linear function of the logarithm of the concentration of the organic acid at a given concentration of I. The sensitivity of the electrode decreases at high concentrations of I. The effect of I on E is smaller in very dilute solutions. Though the dependence of E on

Card 1/2

17

POLAND/Physical Chemistry - Electrochemistry.

B.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 28045

the pH in alcoholic solutions deviates from the values corresponding to the Nernst equation, all shifts in E are regular and reproducible and can be used in the determination of the concentration of H ions.

Card 2/2

POLAND/Physical Chemistry. Surface Phenomena. Adsorption.
Chromatography. Ion Exchange.

D-13.

Abs Jour: Ref Zhur-Khim., No 13, 1958, 42740.

Author : Bylo Zbigniew.

Inst :

Title : Determination of Adsorption in the Flotation Process.

Orig Pub: Arch. hutn., 1957, 2, No 3, 243-267.

Abstract: Adsorption of some organic substances at hydrophilic adsorbents was measured by the method of frontal analysis in chromatographic columns having a length of 150-250 mm. Concentration of the solutions was measured potentiometrically by means of a microcell with Sb-electrode. Adsorption of propionic and acetic acid, at wood charcoal, was measured potentiometrically and by titration, the results

Card : 1/2

PCLAND/Physical Chemistry. Surface Phenomena. Adsorption.
Chromatography. Ion Exchange.

B-13

Abs Jour: Ref hur-Khin., No 13, 1958, 42740.

thus obtained being in agreement. Determinations were made of adsorption of n-caproic acid at Al_2O_3 , Al $(\text{OH})_3$, Fe_2O_3 , CaCO_3 , CaF_2 and quartz sand, and of alpha-naphthylamine at CaF_2 and Al_2O_3 .

Card : 2/2

28

WYŁO, Z.

Electrometric chromatographic analysis of multiparticle systems on solid
adsorbent; a thesis, no. 52.
(ZWIADOSCI CHMNICZNE. Vol. 11, no. 1, Jan. 1957, Wroclaw, Poland)

SO: Monthly List of East European Accessions (EEL) 12. Vol. 6, no. 12, Dec. 1957.
Uncl.

Byle Zbigniew

Potentiometric adsorption analysis as applied to determination of adsorption isotherms of chromatographic adsorbents. Bolesław Waligóra and Zbigniew Rybić (Univ. Kraków, Poland). *Zeszyty Nauk. Uniwersyteckie. Ser. Mat. Mat.-Przyrod., Mat., Fiz., Chem.* No. 6, 03-120 (1958) (English summary). --Chromatographic processes including "potentiometric chromatography" (cf. C.A. 49, 12709; Kamiński and Kulawik, C.A. 51, 24190) are reviewed. Isotherms of acetic, propionic, caprylic, caprylic, and myristic acid adsorption on charcoal from aq. or 90% EtOH, 0-0.1 M, solns. (or from ligroine, b. 80-90°, solns. on Brockmann Al₂O₃ in a few expts.) were detd. by frontal analysis at 18-38°. An Sb adsorption microelectrode (K. and K., loc. cit.) was immersed in the eluate; it was sufficiently sensitive even in solvents of reduced cond. For a nonconducting solvent, a SiO₂ gel (spread on the electrode) was used. Data agreed with those obtained by titrating acids in the eluate. J. Stecki

NB

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J. Stecki

BYŁO, Zbigniew

The problem of pyrite and sulfonic groups of spontaneous
combustion of coel. Archiw gorn 5 no.1:99-J15 '69.

1. Zaklad Metalu, Instytut Podstawowych Problemow Techniki, Polska
Akademia Nauk, Krakow.

BYLO, Zbigniew

Conditions for, and the mechanism of the origination of catalyst
of self-heating of coal. Archiw gorn 5 no.4:305-357 '60.

BYLO, Z.

The role of sulfonation in the spontaneous ignition of coals. Bul
Ac Pol tech 8 no.2:107-114 '60. (EEAI 9:7)

1. Department of Metallurgy, Cracow, Institute of Basic Technical
Problems Polish Academy of Sciences. Presented by J.Litwiniszyn.
(Combustion, Spontaneous) (Coal) (Sulfonation)

BYLO, Z.; RACHTAN, M.

Nitration ability as a characteristic distinguishing self-inflammable coals from those nonliable to spontaneous ignition. Bul Ac Pol tech 8 no.7:391-398 '60. (EEAI 10:3)

1. Department of Metals, Cracow, Institute of Basic Technical Problems, Polish Academy of Sciences. Presented by A.Krupkowski and J.Litwiniszyn
(Nitration) (Coal) (Combustion, Spontaneous)

BYLO, Z.; RACHTAN, M.

The role of sulfonic groups in the formation of catalysts of spontaneous ignition of coals. Bul Ac Pol Tech 8 no.8:467-475 '60. (EEAI 10:6)

1. Department of Metals, Cracow, Institute of Basic Technical Problems, Polish Academy of Sciences. Presented by A.Krupkowski and J.Litwiniszyn.

(Mine fires) (Coal) (Sulfonic group)
(Catalysts)

BYLO, Zbigniew; RACHTAN, Medard

Origination of the catalysts of selfigniting coal in the light
of the hydrolytic reaction of the exchange of sulphuric
groups. Archiw gorn 6 no.4:331-346 '61.

BYLO, Z.; RAGHTAN, M.

Authoxidation effect as method of determining the liability of coals
to spontaneous ignition. Bul Ac Pol tech 9 no.4:239-245 '61.
(EEAI 10:9/10)

1. Department of Metals (Cracow) and Institute of Fundamental
Technical Problems, Polish Academy of Sciences. Presented by
A. Krupkowski.

(Coal)

BYLO, Z.

Spontaneous ignition of coals in the light of studies in model systems. Bul Ac Pol tech 10 no.5:[301]-[307] '62.

1. Department of Chemistry of Metals and Ores, School of Mining and Metallurgy, Krakow. Presented by A.Krupkowski.

BILO, Zbignev [Bylo, Zbigniew]; PANEK, Maria

Influence of oxidation on the reaction effect of coal in diluted nitric acid solutions. Archiw gorn 9 no.4:383-397 '64.

1. Submitted May 2, 1964.

BYŁO, Zbigniew; PANEK, Maria; POLCHŁOPEK, Bogusława

Effect of certain compounds on the course of reaction in
the system carbon-hydrogen peroxide. Archiw gorn 10 no.1:
65-78 '65.

1. Department of Chemistry of Metals and Ores of the School
of Mining and Metallurgy, Krakow. Submitted February 5, 1964.

BYLOV, B.D., inzh.

Criteria and evaluation of the technical level of technological
processes of metal cutting. Izv. vys. ucheb. zav.; mashinostr.
no.3:92-100 '65.

(MIRA 18:6)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut mashino-
stroyeniya.

YAKOBSON, M.O., doktor tekhn. nauk; BYLOV, B.D., inzh.

Estimating the level of the development of technological
processes in mechanical processing. Trakt. i sel'khozmash.
33 no.7:39-42 Jl '63.
(MIRA 16:11)

Bylov, B. P. On an estimate for the characteristic numbers
of the solution of almost diagonal systems of linear
differential equations. Akad. Nauk SSSR. Prikl. Mat.
Mech. 14, 114-116 (1950). (Russian)

The paper deals with a regular system

$$x_i = \sum p_{ij}(t)x_j, \quad i, j = 1, \dots, n,$$

with coefficients continuous and bounded for $t \geq 0$ and such
that $p_{ii} \leq p_{11} + 2(n-1)\{p_{jk} | j \neq k\}$. For such a system
there are given rather complicated bounds for the charac-
teristic numbers in the sense of Liapounoff.

S. Lefschetz (Princeton, N. J.).

Bylov, B. F. On the characteristic numbers of the solutions
of systems of linear differential equations. Akad. Nauk
SSSR. Prikl. Mat. Meh. 14, 341-352 (1950). (Russian)
The author proves the following general result concerning
the characteristic numbers, in the sense of Liapounoff, of
linear systems with variable coefficients, $dx/dt = A(t)x$: If
 $A(t)$ approach $B(t)$ as $t \rightarrow \infty$, then the characteristic numbers
of the two systems coincide. He also discusses the charac-
teristic numbers of some particular systems.

R. Bellman (Stanford University, Calif.).

Source: Mathematical Reviews,

Vol 12, No. 3

BYLO', B. P.

Dissertation: -- "On the Stability of the Characteristic Exponents of Systems
of Linear Differential Equations." Cand Phys-Math Sci, Moscow Order of Lenin
State U imeni M. V. Lomonosov, 29 Jun 54. (Vechernyaya Moskva, Moscow, 18 Jun 54.)

SO: Sum 318, 23 Dec. 1954

D'yakov, B.P.

Blylov, B.P. On stability beyond the greatest characteristic exponent. Dokl. Akad. Nauk SSSR (N.S.) 103, 181-184 (1955). (Russian).

Non-linear differential systems

1 - F/W

$$(1) \quad \frac{dx_i}{dt} = f_{ii}(t)x_i + F_i(t, x), \quad x = (x_1, \dots, x_n) \quad (i=1, 2, \dots, n)$$

are considered with

$$(2) \quad F_i(t, 0) = 0, |F_i(t, x) - F_i(t, x')| \leq \delta|x - x'| \quad (i=1, \dots, n).$$

The linear system

$$(3) \quad \frac{dx_i}{dt} = p_{ii}(t)x_i$$

is supposed to be regular in the sense of Lyapunov and the functions $p_{ii}(t)$ bounded with $\Lambda = \max \lambda_i$.

$$\lambda_i = \lim t^{-1} \int_0^t p_{ii}(\xi) d\xi$$

as $t \rightarrow +\infty$. System (3) is said to be stable beyond the greatest characteristic value if for every $\varepsilon > 0$ there exists $\delta > 0$ such that for every F_i satisfying (2) the characteristic exponents of the solutions of systems (1) (in the sense of Lyapunov) do not exceed $\Lambda + \varepsilon$. Then it is proved

(Loren)

Brylaw, B.F.

that this type of stability occurs if and only if, for every α and continuous bounded $g(t)$ with $t^{-1} \int_0^t g(\xi) d\xi \rightarrow \Lambda$ as $t \rightarrow +\infty$, there exists a constant $C = C(\alpha)$ and a continuous bounded $f_\alpha(t)$ with $\limsup t^{-1} \int_0^t f_\alpha(\xi) d\xi \leq \alpha$ as $t \rightarrow +\infty$, such that $A \leq BC$, where $A = \exp \int_0^\infty [f_\alpha - g] d\xi$.

$$B = \exp \left[\alpha(t-\tau) + \int_\tau^t f_\alpha d\xi \right],$$

for all t and $\tau \geq 0$.

L. Cesari (Lafayette, Ind.).

2/2

SEARCHED
SERIALIZED
FILED

16(1)

AUTHOR: Bylov, B.F. (Moscow)

TITLE: On the Stability From Above of the Greatest Characteristic

SOV/39-48-1-5/5

Exponent of a System of Linear Differential Equations With
Almost-Periodic Coefficients (Ob ustoychivosti sverkhu
naibol'shego kharakteristicheskogo pokazatelya sistemy
lineynykh differentials'nykh uravneniy s pochti-periodiches-
kimi koeffitsiyentami)

PERIODICAL: Matematicheskiy sbornik, 1959, Vol 48, Nr 1, pp 117-128 (USSR)

ABSTRACT: Given the systems

$$(1) \quad \frac{dx}{dt} = A(t)x + F(t,x)$$

$$(2) \quad \frac{dx}{dt} = A(t)x,$$

where the elements $a_{ij}(t)$ of the matrix $A(t)$ are continuous and almost periodic, while the components $F_i(t, x_1, x_2, \dots, x_n)$ of $F(t, x)$ are continuous for $t \geq 0$ and

$$(3) |F_i(t, \bar{x}_1, \bar{x}_2, \dots, \bar{x}_n) - F_i(t, x_1, x_2, \dots, x_n)| \leq \delta \sum_{j=1}^n |\bar{x}_j - x_j|, \\ F_i(t, 0, \dots, 0) = 0.$$

Card 1/2

On the Stability From Above of the Greatest Characteristic Exponent of a System of Linear Differential Equations With Almost-Periodic Coefficients SOV/39-48-1-5/5

Let $\{x_1(t), \dots, x_n(t)\}$ be a solution of (2); let λ be the greatest characteristic exponent of (2). λ is called stable from above with respect to the disturbance functions $F(t, x)$ if to every $\epsilon > 0$ there exists a $\delta > 0$ so that for all F_i , satisfying (3), the characteristic exponents of (1) are not greater than $\lambda + \epsilon$.

After very numerous assumptions and definitions the author proves two theorems. The first one contains necessary and sufficient, the second one sufficient conditions for the stability of λ to above.

There are 3 references, 2 of which are Soviet, and 1 German.

SUBMITTED: September 2, 1957

Card 2/2

S/199/62/003/003/002/002
B112/B104

AUTHOR: Bylov, B. F.

TITLE: Almost reducible systems of differential equations

PERIODICAL: Sibirskiy matematicheskiy zhurnal, v. 3, no. 3, 1962,
333-359

TEXT: A system $dx/dt = A(t)x$ is said to be almost reducible to a system $dz/dt = B(t)z$ if for each $\delta > 0$ a Lyapunov transformation $x = Q_\delta(t)u$ exists which carries the system $dx/dt = A(t)x$ into a system $du/dt = (B(t) + \phi(t))u$, where the absolute values of the elements of the matrix ϕ do not exceed the number δ . If a system is almost reducible to a system with constant coefficients, then it is called (absolutely) almost reducible. Necessary and sufficient conditions of almost reducibility are derived. Such a condition is the following: For each reduction of the matrix A to a triangular matrix P by a Lyapunov

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Almost reducible systems of ...

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transformation Q, the relations $\lim_{t-\tau \rightarrow \infty} (1/(t-\tau)) \int_{\tau}^t p_{ii}(\xi) d\xi = \lambda_i$ ($i = 1, 2, \dots, n$) are valid, where $\lambda_i = \lim_{t \rightarrow \infty} (1/t) \ln |x_i(t)|$. ($x_i(t)$ are the linearly independent solutions of the system $dx/dt = A(t)x$).

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Card 2/2

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Principle of linear inclusion for systems of differential
equations. Usp.mat.nauk 17 no.3:159-161 My-Je '62.

(Differential equations)

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1241-1262 N-D '63. (MIRA 17:9)

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66 no.2:215-229 F '65. (MIR 18:4)

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